

Amendments to the Claims

1 1. (currently amended) A method for encoding a video, comprising:
2 applying a three dimensional dual-tree discrete wavelet transform to
3 the video to generate a plurality of three dimensional sequences of wavelet
4 coefficients having spatial and temporal correlation; and
5 compressing the plurality of three dimensional sequences to produce a
6 compressed bitstream corresponding to the video.

1 2. (original) The method of claim 1, in which the compressing further
2 comprises:
3 selecting iteratively the wavelet coefficients in a large to small order;
4 and
5 entropy encoding the selected wavelet coefficient.

1 3. (currently amended) The method of claim 2, further comprising:
2 predicting a subset of the wavelet coefficients of the three dimensional
3 sequences.

1 4. (currently amended) The method of claim 1, in which there are four
2 sequences ~~having a spatial and temporal correlation~~.

1 5. (original) The method of claim 2, in which the entropy encoding is
2 arithmetic encoding.

1 6. (original) The method of claim 2, in which the entropy encoding is
2 content-adaptive arithmetic coding.

1 7. (original) The method of claim 2, in which the selecting is a noise shaping
2 method.

1 8. (original) The method of claim 7, in which the noise shaping method
2 modifies large wavelet coefficients to compensate for a loss of small wavelet
3 coefficients, without substantially changing content of the video.

1 9. (currently amended) The method of claim 7, in which the noise shaping
2 method further comprises:

3 quantizing the wavelet coefficients to produce quantized wavelet
4 coefficients;

5 inverse transforming the quantized wavelet coefficient to a quantized
6 video;

7 determining an error signal between the video and the quantized video;

8 applying the three dimensional dual-tree discrete wavelet transform to
9 the error signal; and

10 adding the transformed error signal, after a delay, to the quantized
11 wavelet coefficients.

1 10. (original) The method of claim 2, in which the selecting uses a matching
2 pursuit method.

1 11. (original) The method of claim 10, in which the matching pursuit method
2 iteratively selects the wavelet coefficients in a large to small order.

12. (canceled)

13. (canceled)

1 14. (original) The method of claim 3, in which the predicted subset of the
2 wavelet coefficients are in low energy subbands.

1 15. (original) The method of claim 2, in which the sequences are encoded
2 bitplane by bitplane in a most significant bit to least significant bit order.

1 16. (original) The method of claim 1, in which the compressed bitstream is
2 expressed as multiple descriptions.

1 17. (currently amended) The method of claim 16, in which the plurality of
2 three dimensional sequences are coded independently to produce the
3 multiple descriptions.

1 18. (original) The method of claim 16, in which subsets of the wavelet
2 coefficient are coded to produce the multiple descriptions.

1 19. (original) The method of claim 16, further comprising:
2 estimating, in a receiver, lost descriptions from a subset of the
3 multiple descriptions received.